

AMENDMENT

IN THE CLAIMS:

Please withdraw Claims 36-46, 58-69 and 71-132.

- 1 1. (Original) An apparatus for preventing cracking of a liquid system, comprising:
2 at least one heat exchanger;
3 at least one inlet port extending through a first opening for conveying a fluid to a plurality
4 of channels and passages;
5 at least one outlet port extending through a second opening for discharging the fluid from
6 the plurality of channels and passages; and
7 one or more compressible objects coupled to the inlet and outlet ports in an unpressured
8 condition such that the compressible objects reduce a volume of the inlet port and the
9 outlet port and further wherein pressure exerted on the compressible object increases a
10 volume of the inlet port and the outlet port.

- 1 2. (Original) The apparatus of claim 1, wherein the compressible objects accommodate a
2 predetermined level of fluid expansion.

- 1 3. (Original) The apparatus of claim 2, wherein the predetermined level of fluid expansion is
2 between 5 to 25 percent.

- 1 4. (Original) The apparatus of claim 1, wherein the compressible objects being capable of
2 contracting and expanding between a minimum volume and a maximum volume.

- 1 5. (Original) The apparatus of claim 1, wherein the compressible objects being secured
2 within the inlet port and the outlet port.

- 1 6. (Original) The apparatus of claim 1, wherein the compressible objects are confined within
2 the inlet port and the outlet port.

- 1 7. (Original) The apparatus of claim 1, wherein the compressible objects are made of one of
2 the following: sponge, foam, air-filled bubbles, or balloons.
- 1 8. (Original) The apparatus of claim 7, wherein the sponge or foam is hydrophobic.
- 1 9. (Original) The apparatus of claim 1, wherein the compressible object is encapsulated in a
2 gas or liquid impermeable package.
- 1 10. (Original) The apparatus of claim 9, wherein the package is formed of metallic barrier
2 material or metallized plastic sheet material.
- 1 11. (Original) The apparatus of claim 9, wherein the package has a hydrophilic surface or
2 coating.
- 1 12. (Original) The apparatus of claim 9, wherein the package is formed of plastic material.
- 1 13. (Original) The apparatus of claim 12, wherein the plastic material is selected from the
2 group teflon, mylar, PET, PEN, PVC, or other suitable plastic materials.
- 1 14. (Original) An apparatus for preventing cracking of a liquid system, comprising:
2 at least one heat exchanger having a top element and a bottom element;
3 a plurality of channels and passages formed within the bottom element to provide flow of
4 a fluid therethrough; and
5 one or more compressible objects positioned within one or more of the channels and
6 passages such that in an uncompressed state the compressible objects reduce a volume of
7 each of the channels and passages having compressible objects and further wherein under
8 pressure exerted within the channels and passages the compressible objects are
9 compressed to increase the volume of each of the channels and passages.
- 1 15. (Original) The apparatus of claim 14, wherein the compressible objects accommodate a
2 predetermined level of fluid expansion.

- 1 16. (Original) The apparatus of claim 15, wherein the predetermined level of fluid expansion
2 is between 5 to 25 percent.
- 1 17. (Original) The apparatus of claim 14, wherein the compressible objects being capable of
2 contracting and expanding between a minimum volume and a maximum volume.
- 1 18. (Original) The apparatus of claim 14, wherein the compressible objects being positioned
2 with a portion of the top element.
- 1 19. (Original) The apparatus of claim 14, wherein the compressible objects are made of one
2 of the following: sponge, foam, air-filled bubbles, or balloons.
- 1 20. (Original) The apparatus of claim 14, wherein the compressible objects are encapsulated
2 in a gas or liquid impermeable package.
- 1 21. (Original) The apparatus of claim 20, wherein the package is formed of metallic barrier
2 material or metallized plastic sheet material.
- 1 22. (Original) The apparatus of claim 20, wherein the package has a hydrophilic surface or
2 coating.
- 1 23. (Original) The apparatus of claim 20, wherein the package is formed of plastic material.
- 1 24. (Original) The apparatus of claim 23, wherein the plastic material is selected from the
2 group teflon, mylar, PET, PEN, PVC, or other suitable plastic materials.
- 1 25. (Original) An apparatus for preventing cracking of a liquid system, comprising:
2 an enclosure; and
3 one or more compressible objects immersed in the enclosure.
- 1 26. (Original) The apparatus of claim 25, wherein the objects accommodate a predetermined
2 level of fluid expansion.

- 1 27. (Original) The apparatus of claim 26, wherein the predetermined level of fluid expansion
2 is between 5 to 25 percent.
- 1 28. (Original) The apparatus of claim 25, wherein the objects having a size and volume
2 proportion to an amount of fluid in the enclosure.
- 1 29. (Original) The apparatus of claim 25, wherein the objects are a hydrophobic foam.
- 1 30. (Original) The apparatus of claim 25, wherein the object are a hydrophobic sponge.
- 1 31. (Original) The apparatus of claim 25, wherein the objects are made of one of the
2 following: sponge, foam, air-filled bubbles, or balloons.
- 1 32. (Original) The apparatus of claim 25, wherein the objects are encapsulated in a gas or
2 liquid impermeable package.
- 1 33. (Original) The apparatus of claim 32, wherein the package is formed of metallic barrier
2 material or metallized plastic sheet material.
- 1 34. (Original) The apparatus of claim 32, wherein the package is formed of plastic material.
- 1 35. (Original) The apparatus of claim 34, wherein the plastic material is selected from the
2 group teflon, mylar, PET, PEN, PVC, or other suitable plastic materials.
- 1 36-46 (Withdrawn)
- 1 47. (Original) A method of preventing cracking of a liquid system, the system including one
2 or more pumps and one or more heat exchangers, the method comprising the steps of:
3 providing an enclosure; and
4 immersing one or more compressible objects in the enclosure.
- 1 48. (Original) The method of claim 47, wherein the objects accommodate a predetermined
2 level of fluid expansion.

- 1 49. (Original) The method of claim 48, wherein the predetermined level of fluid expansion is
2 between 5 to 25 percent.
- 1 50. (Original) The method of claim 47, wherein the objects having a size and volume
2 proportion to an amount of fluid in the enclosure.
- 1 51. (Original) The method of claim 47, wherein the objects are a hydrophobic foam.
- 1 52. (Original) The method of claim 47, wherein the objects are a hydrophobic sponge.
- 1 53. (Original) The method of claim 47, wherein the objects are made of one of the following:
2 sponge, foam, air-filled bubbles, or balloons.
- 1 54. (Original) The method of claim 47, wherein the objects are encapsulated in a gas or liquid
2 impermeable package.
- 1 55. (Original) The method of claim 54, wherein the package is formed of metallic barrier
2 material or metallized plastic sheet material.
- 1 56. (Original) The method of claim 54, wherein the package is formed of plastic material.
- 2 57. (Original) The method of claim 56, wherein the plastic material is selected from the group
3 teflon, mylar, PET, PEN, PVC, or other suitable plastic materials.
- 1 58-69 (Withdrawn).
- 1 70. An apparatus for preventing cracking of a liquid system, the system including one or
2 more pumps and one or more heat exchangers, comprising an enclosure, wherein the
3 enclosure being capable of contracting and expanding between a minimum size and
4 volume condition and a maximum size and volume condition.
- 1 71-132 (Withdrawn).